

# **ABSTRACT**

A method and system are presented for use in controlling the processing of a structure. First measured data is provided being indicative of at least one of the following: a thickness ( $d_2$ ) of at least one layer ( $L_2$ ) of the structure W in at least  
5 selected sites of the structure prior to the processing of the structure, and a surface profile of the structure prior to said processing. An optical measurement is applied to at least the selected sites of the structure after said processing and second measured data is generated being indicative of at least one of the following: a thickness of the processed structure ( $d'$ ) and a surface profile of the processed  
10 structure, The second measured data is analyzed by interpreting it using the first measured data to thereby determine a thickness ( $d'_1$  or  $d'_2$ ) of at least one layer of the processed structure. This determined thickness is thus indicative of the quality of said processing.